

Missouri Assessment Program Spring 2003

Mathematics

Released Items

Grade 10



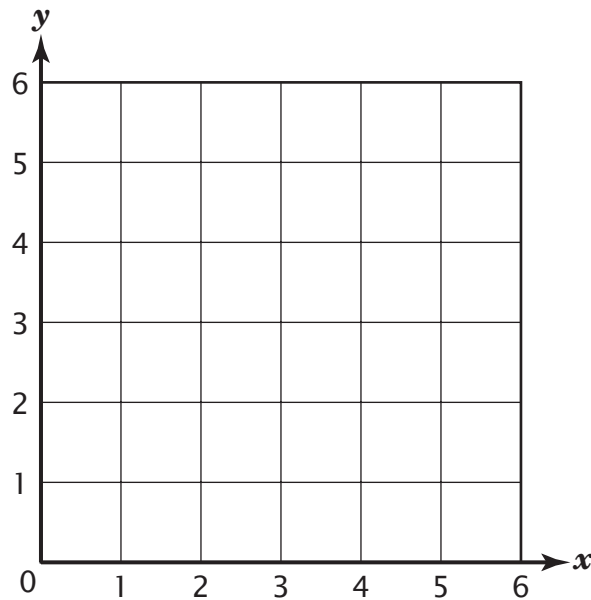
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1

A group of friends decided to build a ramp to practice in-line skating. An experienced ramp designer suggested they start planning the shape of the ramp by using the equation $y = \frac{1}{4}x^2$. Use the equation to complete the table below.

x	y
0	
1	
2	
3	
4	

Using the values from the table, sketch the shape of the ramp on the grid below.

*Go On ►*

2

An advertising agency creates magazine ads for customers. The cost for each ad is a basic fee of \$500 plus \$85 per square inch of advertising. In the space below, write an **equation** to find the total cost of an ad. Let c represent the total cost of an ad and n represent the number of square inches in the ad.

If a customer wants 12 square inches of ad space, what will be the total cost of the ad? In the space below, provide the work that shows how you arrived at your answer and write your answer on the line.

\$ _____

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Released Items Scoring Guide

Grade 10

Session: 1
Item No.: 1
Page No.: 3
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 1.8

Exemplary Response:

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x	y
0	0.0
1	0.25
2	1.0
3	2.25
4	4.0

OR

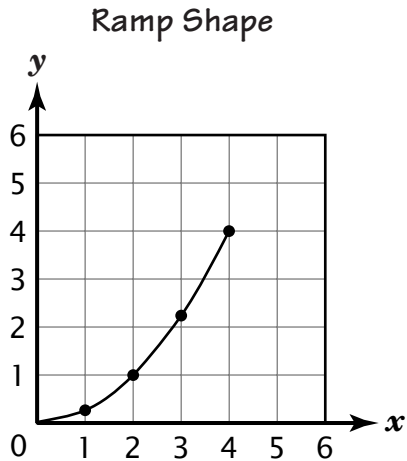
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x	y
0	0
1	$\frac{1}{4}$
2	1
3	$2\frac{1}{4}$
4	4

Session: 1
Item No.: 1
Page No.: 3
Content Standard(s): 4 Patterns and Relationships
Process Standard(s): 1.8

AND

•



Score Points:

2 points	Exemplary response
1 point	Correct process; error in computation or diagram
	OR
	Correct graph based on student's chart
0 points	Other

Session: 2
Item No.: 2
Page No.: 4
Content Standard(s): 1 Number Sense
Process Standard(s): 1.10

Exemplary Response:

- $c = 500 + 85n$

OR

Other valid equation

AND

- $(\$1520)$

Score Points:

2 points	Exemplary response
1 point	One correct component
0 points	Other